

## IN THE CLAIMS

Please amend the claims as follows:

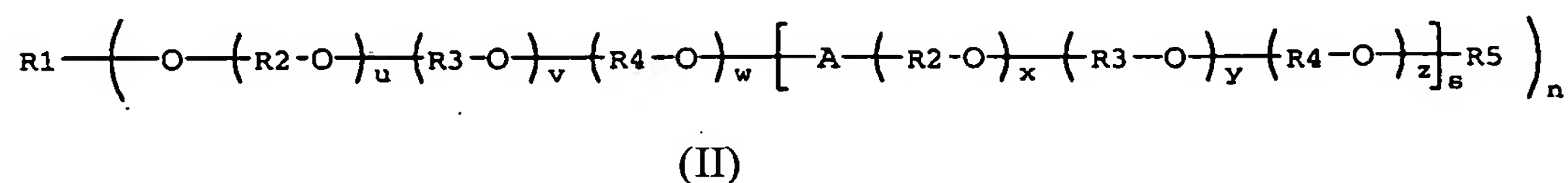
Claim 1 (Currently Amended): An aqueous polymer dispersion ~~which is obtainable~~ obtained by emulsion polymerization of ethylenically unsaturated monomers in an aqueous medium in the presence of free radical polymerization initiators and stabilizers, wherein amphiphilic polymers ~~which comprise~~ comprising one or more hydrophobic units (A) and one or more hydrophilic units (B) are used as a stabilizer before, during or after the polymerization, the hydrophobic units (A) being formed from a polyisobutene block, at least 50 mol% of whose polyisobutene macromolecules have terminally arranged double bonds.

Claim 2 (Currently Amended): The aqueous polymer dispersion according to claim 1, ~~which comprises~~ comprising from 0.1 to 70% by weight of at least one amphiphilic polymer ~~which comprises~~ comprising one or more hydrophobic units (A) and one or more hydrophilic units (B), the hydrophobic units (A) being formed from a polyisobutene block, at least 50 mol% of whose polyisobutene macromolecules have terminally arranged double bonds.

Claim 3 (Currently Amended): The aqueous polymer dispersion according to claim 1 [[or 2]], wherein the polyisobutene block is formed from polyisobutene macromolecules, of which at least 60, preferably 80, mol%, based on the total number of the polyisobutene macromolecules, comprise terminally arranged double bonds.

Claim 4 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 3,~~ claim 1, wherein one or more hydrophilic units (B) are formed from repeating ethylene oxide or ethylene oxide/propylene oxide units, it being possible for the proportion of propylene oxide units to be up to 50% by weight.

Claim 5 (Currently Amended): The aqueous polymer dispersion according to ~~any of~~  
~~claims 1 to 3, claim 1,~~ wherein one or more hydrophilic units (B) are formed from the  
 following formula



where, independently from one another,

$R^1$  is hydrogen,  $C_1$ – $C_{24}$ –alkyl,  $R^6$ –C(=O)–,  $R^6$ –NH–C(=O)– or a polyalcohol radical;

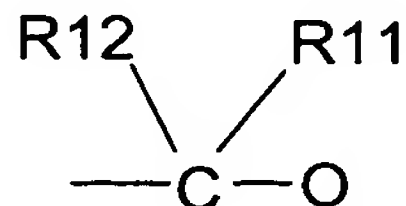
$R^5$  is hydrogen,  $C_1$ – $C_{24}$ –alkyl,  $R^6$ –C(=O)– or  $R^6$ –NH–C(=O)–;

$R^2$  to  $R^4$  are  $-(CH_2)_2-$ ,  $-(CH_2)_3-$ ,  $-(CH_2)_4-$ ,  $-CH_2-CH(R^6)-$ ,  
 $-CH_2-CHOR^7-CH_2-$ ;

$R^6$  is  $C_1$ – $C_{24}$ –alkyl;

$R^7$  is hydrogen,  $C_1$ – $C_{24}$ –alkyl,  $R^6$ –C(=O)– or  $R^6$ –NH–C(=O)–;

A: is  $-C(=O)-O$ ,  $-C(=O)-D-C(=O)-O$ ,  
 $-CH_2-CH(-OH)-D-CH(-OH)-CH_2-O$ ,  
 $-C(=O)-NH-D-NH-C(=O)-O$ ;



D is  $-(CH_2)_t-$ , arylene, substituted or unsubstituted;

$R^{11}$  and  $R^{12}$  are hydrogen,  $C_1$ - $C_{24}$ -alkyl,  $C_1$ - $C_{24}$ -hydroxyalkyl, benzyl or phenyl;  
 $n$  is 1 if  $R^1$  is not a polyalcohol radical or  
is from 1 to 500 if  $R^1$  is a polyalcohol radical;  
 $s$  is from 0 to 1000;  $t$  is from 1 to 12;  $u$  is from 1 to 2000;  $v$  is from 0 to 2000;  $w$  is  
from 0 to 2000; and  
 $x$  is from 0 to 2000;  $y$  is from 0 to 2000;  $z$  is from 0 to 2000.

Claim 6 (Currently Amended): The aqueous polymer dispersion according to ~~any of~~  
~~claims 1 to 3~~, claim 1, wherein one or more hydrophilic units (B) are formed from the  
~~following group:~~ group consisting of monoaminoethylene oxide, monothioethylene oxide,  
and diaminoethylene oxide.

Claim 7 (Currently Amended): The aqueous polymer dispersion according to ~~any of~~  
~~claims 1 to 6~~, claim 1, wherein the polyisobutylene block is functionalized with introduction  
of polar groups, and the functionalized polyisobutene block is, if appropriate, then further  
modified.

Claim 8 (Currently Amended): The aqueous polymer dispersion according to claim 7,  
wherein the functionalization of the polyisobutene block is carried out by a reaction ~~which~~  
that is selected from the following list:

- i) reaction with aromatic hydroxy compounds in the presence of an alkylation  
catalyst to give aromatic hydroxy compounds alkylated with polyisobutenes,

- ii) reaction of the polyisobutene block with a peroxy compound to give an epoxidized polyisobutene,
- iii) reaction of the polyisobutene block with an alkene which has a double bond substituted by electron-attracting groups (enophile), in an ene reaction,
- iv) reaction of the polyisobutene block with carbon monoxide and hydrogen in the presence of a hydroformylation catalyst to give a hydroformylated polyisobutene,
- v) reaction of the polyisobutene block with a phosphorus halide or a phosphorus oxychloride to give a polyisobutene functionalized with phosphono groups,
- vi) reaction of the polyisobutene block with a borane and subsequent oxidative cleavage to give a hydroxylated polyisobutene,
- vii) reaction of the polyisobutene block with an SO<sub>3</sub> source, preferably acetyl sulfate or oleum, to give a polyisobutene having terminal sulfo groups, and
- viii) reaction of the polyisobutene block with oxides of nitrogen and subsequent hydrogenation to give a polyisobutene having terminal amino groups.

Claim 9 (Currently Amended): The aqueous polymer dispersion according to ~~any of~~ ~~claims 1 to 8,~~ claim 1, wherein the amphiphilic polymers ~~which comprise~~ comprising one or more hydrophobic units (A) and one or more hydrophilic units (B) are ~~obtainable~~ obtained by

reaction of hydrophobic units (A) comprising a functionalized polyisobutene block with alkylene oxides or by polymer-analogous reaction with one or more polyalkylene oxides.

Claim 10 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 9,~~ claim 1, wherein the amphiphilic polymer has an ABA structure.

Claim 11 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 9,~~ claim 1, wherein the amphiphilic polymer has  $A_pB_q$  structures, where p and q, independently of one another, are from 1 to 8.

Claim 12 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 11,~~ which comprises claim 1, comprising from 0.1 to 70% by weight of blends of amphiphilic polymers.

Claim 13 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 10 and 12,~~ which comprises claim 1, comprising from 0.5 to 20% by weight of at least one amphiphilic polymer having a structure of the type A-B-A.

Claim 14 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 9, 11 and 12,~~ which comprises claim 1, comprising from 0.5 to 20% by weight of at least one amphiphilic polymer of the structure  $A_pB_q$ , where p and q, independently of one another, are from 1 to 8.

Claim 15 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 14,~~ claim 1, wherein amphiphilic polymers composed of at least one hydrophobic

block A consisting of polyisobutene and at least one hydrophilic block B consisting of polyalkylene oxide or blends of these amphiphilic polymers are used as a stabilizer, the stabilizers having  $A_pB_q$  structures, where p and q, independently of one another, are from 1 to 8, and

A ~~being~~ is a polyisobutene block having an average molar mass  $M_n$  of from 200 to 50 000

and

B ~~being~~ is a polyalkylene oxide block having an average molar mass  $M_n$  of from 200 to 50 000.

Claim 16 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims claim 1 to 15, wherein~~ further comprising three-block copolymers of the structure A-B-A ~~[[are]]~~ used as a stabilizer,

A being a polyisobutene block having an average molar mass  $M_n$  of from 200 to 50 000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from 200 to 50 000.

Claim 17 (Currently Amended): The aqueous polymer dispersion according to ~~any of~~  
~~claims 1 to 16, wherein~~ claim 1, further comprising three-block copolymers of the structure  
A-B-A are used as a stabilizer,

A being a polyisobutene block having an average molar mass  $M_n$  of from 200 to  
20 000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from  
500 to 30 000.

Claim 18 (Currently Amended): The aqueous polymer dispersion according to ~~any of~~  
~~claims 1 to 17, wherein~~ claim 1, further comprising three-block copolymers of the structure  
A-B-A are used as a stabilizer,

A being a polyisobutene block having an average molar mass  $M_n$  of from 450 to  
5000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from  
800 to 15 000.

Claim 19 (Currently Amended): The aqueous polymer dispersion according to ~~any of claims 1 to 17, wherein~~ claim 1, further comprising three-block copolymers composed of polyisobutene functionalized with succinic anhydride groups (PIBSA) as hydrophobic block A and of polyethylene oxide (PEO) as hydrophilic block B, of the structure A-B-A, ~~[[are]]~~ used as a stabilizer,

A being a polyisobutene block having an average molar mass  $M_n$  of from 450 to 5000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from 800 to 15 000.

Claim 20 (Currently Amended): A process for the preparation of aqueous polymer dispersions according to ~~any of claims 1 to 19 by polymerization of~~ claim 1, the process comprising polymerizing ethylenically unsaturated monomers in an aqueous medium in the presence of free radical polymerization initiators and at least one stabilizer by an emulsion polymerization method, wherein amphiphilic polymers ~~which comprise~~ comprising one or more hydrophobic units (A) and one or more hydrophilic units (B) are used as a stabilizer before, during or after the polymerization, the hydrophobic units (A) being formed from a polyisobutene block, at least 50 mol% of whose polyisobutene macromolecules have terminally arranged double bonds.



Claim 21 (Original): The process according to claim 20, wherein amphiphilic polymers composed of at least one hydrophobic block A consisting of polyisobutene and at least one hydrophilic block B consisting of polyalkylene oxide or blends of these amphiphilic polymers are used as a stabilizer, the stabilizers having structures  $A_pB_q$ , where p and q, independently of one another, are from 1 to 8, and

A being a polyisobutene block having an average molar mass  $M_n$  of from 200 to 50 000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from 200 to 50 000.

Claim 22 (Currently Amended): The process according to ~~claim 20 or 21~~, claim 20, wherein three-block copolymers of the structure A-B-A are used as a stabilizer,

A being a polyisobutene block having an average molar mass  $M_n$  of from 200 to 20 000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from 500 to 30 000.

Claim 23 (Currently Amended): The process according to ~~any of claims 20 to 22,~~  
claim 20, wherein three-block copolymers of the structure A-B-A are used as a stabilizer,

A being a polyisobutene block having an average molar mass  $M_n$  of from 450 to 5000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from 800 to 15 000.

Claim 24 (Currently Amended): The process according to ~~any of claims 20 to 23,~~  
claim 20, wherein three-block copolymers ~~which are~~ composed of polyisobutene functionalized with succinic anhydride groups (PIBSA) as hydrophobic block A and of polyethylene oxide (PEO) as hydrophilic block B, of the structure A-B-A are used as a stabilizer,

A being a polyisobutene block having an average molar mass  $M_n$  of from 450 to 5000

and

B being a polyalkylene oxide block having an average molar mass  $M_n$  of from 800 to 15 000.

Claim 25 (Currently Amended): ~~The use of~~ An associative thickener for aqueous media comprising an aqueous polymer dispersion according to any of claims 1 to 19 as an associative thickener for aqueous media. claim 1.

Claim 26 (Currently Amended): ~~The use of~~ A paper coating slip comprising an aqueous polymer dispersion according to any of claims 1 to 19 in paper coating slips, in textile production, as a thickener for textile print pastes, in the pharmaceutical and cosmetics sector, for surface coatings, for detergents and cleaning agents, in foods and as an oil field chemical. claim 1.

Claim 27 (Currently Amended): The ~~[[use]]~~ paper coating slip according to claim 26, ~~wherein~~ further comprising amphiphilic polymers composed of at least one hydrophobic block A consisting of polyisobutene and at least one hydrophilic block B consisting of polyalkylene oxide or blends of these amphiphilic polymers ~~[[are]]~~ used as the sole stabilizer for the polymer dispersion, the stabilizers having at least one of the structures  $A_pB_q$ , where p and q, independently of one another, are from 1 to 8, and

A ~~being~~ is a polyisobutene block having an average molar mass  $M_n$  of from 200 to 50 000

and

B ~~being~~ is a polyalkylene oxide block having an average molar mass  $M_n$  of from 200 to 50 000.